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"The most cost-effective increase in U.S. manufacturing capacity may well be achievable through improved maintenance practices for existing equipment." That was a quote from a 1991 National Research Council book (The Competitive Edge – Research Priorities for U.S. Manufacturing). Unfortunately—or fortunately—this statement is still true today (and probably more so, given the current need for lean solutions). The only caveat that I would add is that this opening quote should have referred to "improved reliability and maintenance practices." The study did, though, recognize that a comprehensive approach is necessary, with an emphasis on changing culture.

Although many say "maintenance" and "reliability," most companies focus mainly on "maintenance" versus "reliability" practices. To counter this, I would recommend (1) instilling a culture that supports problem solving and continuous improvement; (2) establishing a robust reliability process that provides data/feedback for improvement decisions; and (3) implementing a maintenance process to support 1 and 2. During my professional career, I've had the opportunity to observe and benchmark facilities around the world. The best ones have several key elements in common, including:

- Numerous highly engaged teams wanting to make a difference (relentless in implementing lean solutions);
- Plant-wide common problem-solving processes used by everyone (making decisions based on data);
- Aligned Business Process Deployment goals at each layer of the organization (goals are understood and supported by each layer).

From a maintenance perspective, even if not all companies are doing it, most people "get it." They know that more planned maintenance is better and that predictive technologies can help avoid breakdowns, etc. Where many companies fall short is in taking the next step and using the knowledge of data to standardize on a more reliable process, re-engineering a better

machine, focusing on designed-in reliability and maintainability (ease of maintenance) and making life-cycle based purchasing decisions.

Most of my career has been spent developing and implementing lean manufacturing processes and solutions. This includes many years in reliability and maintenance at plant and corporate levels. Having just retired, I was looking for how I could share my knowledge and worldwide benchmarking background and continue in my areas of interest, while helping companies become more competitive. For me, the Maintenance and Reliability Center, working with the College of Engineering at the University of Tennessee (UT) is providing that opportunity. This unique, results-oriented program bridges the gap between industry and academia and offers the chance for member companies to take advantage of targeted learning, networking, information sharing and more!

The collective reliability knowledge of industry-focused professors integrated with practical applications is a powerful combination when it comes to implementing real-world reliability, maintenance and lean manufacturing solutions. With all of the current pressures upon organizations to reduce cost, what is it that you need to take the next step and make a difference? We want to help you take that step.

I invite you to learn more about MRC, then, join us on our journey in bringing reliability to the forefront and finally re-writing the 1991 findings I referenced at the start of this article. If not now, when? **MT**

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